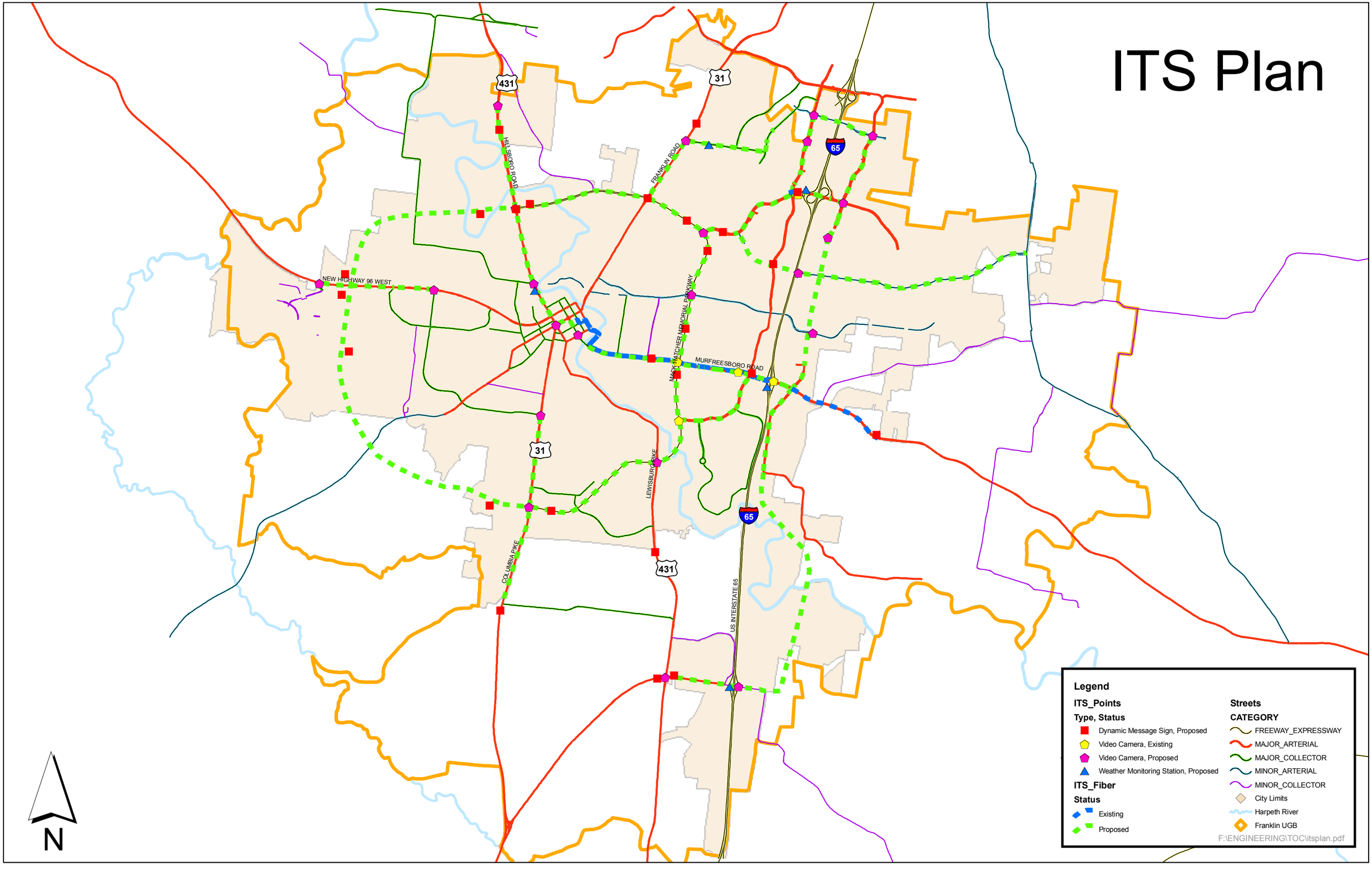
ITS Plan


431
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65
HILLSBORO ROAD
FRANKLIN ROAD
NEW HIGHWAY 96 WEST
MACY HATCHER MEMORIAL PARKWAY
MURFREESBORO ROAD
LEWISBURG PIKE
COLUMBIA PIKE
US INTERSTATE 65
N
Legend
ITS_Points
Type, Status
Dynamic Message Sign, Proposed
Video Camera, Existing
Video Camera, Proposed
Weather Monitoring Station, Proposed
ITS_Fiber
Status
Existing
Proposed
Streets
CATEGORY
FREEWAY_EXPRESSWAY
MAJOR_ARTERIAL
MAJOR_COLLECTOR
MINOR_ARTERIAL
MINOR_COLLECTOR
City Limits
Harpeth River
Franklin UGB
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MEMORANDUM

TO: **FRANKLIN MUNICIPAL PLANNING COMMISSION**

FROM: **Kevin E. Comstock**
ITS Specialist/ Engineering Department

Carl Baughman, P.E.
Traffic/Transportation Engineer/Engineering Department

DATE: **January 26, 2006**

SUBJECT: **Re-Submission for an Amendment to the Major Thoroughfare Plan Update of 2004 (MTPU) for an Intelligent Transportation System (ITS) Master Plan.**

EXECUTIVE SUMMARY

On September 22, 2005, Carl Baughman presented before this Commission an Amendment to the MTPU for an ITS Master Plan. The measure was deferred to the Public Transportation Advisory Board for review and recommendation. Presentation of the Amendment was made to the Public Transportation Advisory Board October 26, 2005 where the motion was made and seconded with the concern with aesthetics being made part of the motion, it subsequently carried unanimously.

The purpose of this amendment is to present a Master Plan to expand ITS infrastructure throughout the City and into its Urban Growth Boundary (UGB). The plan description presents the current local and regional background for the proposed expansion. The City of Franklin's existing ITS equipment were installed in 2002 for the Murfreesboro Road corridor. These existing facilities include 4 CCTV cameras and a 12 count fiber optic cable that is currently at full capacity. The TOC and ITS systems were designed to eventually integrate with multiple agencies in the METRO region. For example, when the City of Brentwood initiates their Traffic Operations Center in the spring of 2006, interagency transportation management between Franklin and Brentwood will become possible. All federal funding of ITS projects must be approved through the Nashville Metropolitan Planning Organization. The amendment also addresses that through inclusion in the MTPU, Developers may be required to participate in the construction of portions of the ITS System via their developments.

The greatest portion of the proposed Amendment presents the proposed components of the ITS Master Plan. The Plan describes the technologies, their placement and funding for the following equipment:

1. Communications: A Fiber Optic Telecommunications and Conduit Network are recommended. It should be constructed with City, State/Federal and developer funds. The overall network of 250,000 linear feet is expected to cost $7,500,000.

2. Closed Circuit Television Cameras (CCTV): High pole-mounted cameras allow live transmission of street images for traffic management. Funding sources could be City, State/Federal and Developers. The overall proposed network consists of 18 additional cameras for an estimated $550,000.

3. Remote Weather Information Stations (RWIS): These stations report roadway conditions in areas subject to flooding or bridge-deck freezing. The estimate to install 6 RWIS with reporting software is $180,000 of government funding.

4. Traffic Count Stations: These will be placed on key arterial corridors for traffic service reporting and data management. The estimate to install 10 Traffic Count Stations and reporting software is $125,000 of government funding.

5. Dynamic Message Signs (DMS): The section below describes the proposal for these devices.

Newly authorized federal legislation provides new funding for the next five years, although completion of the Master Plan may take 15-20 years. The report concludes with a table of unit costs for ITS components, a map layout with proposed component placements, and several exhibits with photos and data for DMS and RWIS.

Process to Approve Dynamic Message Sign (DMS) Locations

Dynamic Message Signs (DMS): Roadside mounted message boards are recommended for motorist information by the Federal recommendations on ITS infrastructure. The overall proposed network for DMS boards would place 25 signs on eight arterials at an expected cost of $2,000,000 of government funding.

By State and City Legislation and Ordinances, the City of Franklin Director of Engineering has the authority to install traffic control devices for the purpose of assigning right of way, safety, and managing traffic congestion. Dynamic Message Signs (DMS) are one method of notifying the traveling public of congestion and hazardous conditions to allow the traveler to choose another route. Potential DMS locations are generally described in the ITS Master Plan 2005. The procedure to review and approve a site specific dynamic message sign location is defined below.

The Director of Engineering shall be responsible for installing DMS according to the Manual on Uniform Traffic Control Devices. The Engineering Department shall minimize the DMS size without compromising function and safety. DMS should be strategically placed to maximize sign function. However, the Engineering Department should make every effort to minimize effects on adjacent property owners when determining sign placements.

Proposed DMS location may be approved by the Director of Engineering under the following criteria:

(A) The DMS is not located adjacent to land zoned for single family residences;
(B) The DMS has an effective area less than 158 square feet;
(C) The DMS does not exceed 25 feet in height;
(D) The DMS is not located within a historic or conservation district.

If the proposed sign does not meet the above criteria, installation must be approved under the public process procedure described below.

Public Process Procedure

(A) Notification to public. The City shall send a written notification that a DMS is planned for installation and date of open house/public hearing to the following parties:
    1. All property owners within 500 feet of the proposed DMS location
    2. Neighborhood associations on record with the City and adjacent to the sign location
    3. Historic or Conservation District (if applicable)
    4. Board of Mayor and Aldermen
    5. Franklin Municipal Planning Commission Member(s)

(B) Open House. The City Engineering Department shall host an open house/public hearing to display the exact location of the sign and answer questions regarding the size, design and exact location. The exact location will be marked in the field using a static sign with wording that indicates the spot as a future dynamic message sign location and contact number.

(C) Mitigation. The notification will allow adjacent property owners to appeal to an appropriately created appeals board (DMS Appeals Board) within 60 days if they object to the installation. If no response is received, the DMS Appeals Board will notify the Director that the sign location may be approved. If appeals are requested within the 60-day timeframe, property owners will be allowed to schedule a hearing with the DMS Appeals Board at its regularly scheduled meeting to discuss their concerns. The committee shall determine if their concerns can be mitigated in the following manner:

1. The sign is relocated within the same area to conceal the view from a residence
2. The sign is concealed from view of residence using landscape materials

(D) The DMS Appeals Board will review the sign site, citizen concerns and determine if the City is able to adequately mitigate using the methods above. If the DMS Appeals Board determines that property owner concerns cannot be mitigated, the DMS Appeals Board may recommend that the proposed DMS location be denied.

(E) DMS Appeals Board Recommendation - The DMS Appeals Board shall determine if the sign location is appropriate and all concerns have been mitigated. The DMS Appeals Board recommendation shall be forwarded to the Board of Mayor and Alderman and will include a background on property owner concerns and resolutions.